

Amended Claims

1. (previously presented) A variable angular distribution lamp comprising:
a substrate;
a first lighting unit comprising:
 a first light emitting diode (LED) arranged on the substrate, and
 a first lens element having a first optical prescription, said first lens element being arranged to interact with light produced by the first LED to produce a first lamp illumination having a first angular distribution;
a second lighting unit comprising:
 a second light emitting diode (LED) arranged on the substrate, and
 a second lens element having a second optical prescription different from the first optical prescription, said second lens element being arranged to interact with light produced by the second LED to produce a second lamp illumination having a second angular distribution that is different from the first angular distribution; and,
a controller for energizing a selected one of the first lighting unit and the second lighting unit to produce a lamp illumination having a selected one of the first angular distribution and the second angular distribution, the controller including a first switch selectably operated to energize the first lighting unit and a second switch selectably operated to energize the second lighting unit.

2-4. (canceled)

5. (previously presented) The lamp as set forth in claim 1, wherein:
light emitted from the first LED has a first spectral composition; and
light emitted from the second LED has a second spectral composition different from the first spectral composition.

6. (previously presented) The lamp as set forth in claim 1, wherein:
at least one of the first and second lens elements has a tinted region that alters a spectral composition of light emitted from the lighting unit including the tinted region.

7-17. (currently canceled)

18. (currently amended) A variable beam spot light including:

a substrate;

a first set of light emitting diodes disposed over the substrate;

a first set of lenses optically coupled to the first set of light emitting diodes, the lenses of the first set of lenses having a radius and refractive index that effects a first angular distribution of light produced by the first set of light emitting diodes;

a second set of light emitting diodes disposed over the substrate;

a second set of lenses optically coupled to the second set of light emitting diodes, the lenses of the second set of lenses having a radius and refractive index that effects a second angular distribution of light produced by the second set of light emitting diodes, the second angular distribution being different from the first angular distribution, the light emitting diodes of the second set being interspersed amongst the light emitting diodes of the first set; and

a control module that energizes a selected one of the first set of light emitting diodes and the second set of light emitting diodes to produce a spot light beam with a corresponding selected one of the first angular distribution and the second angular distribution.

19. (currently amended) ~~The A~~ variable beam spot light ~~as set forth in claim 18, wherein:~~ including:

a substrate;

a first set of light emitting diodes disposed over the substrate, the first set of light emitting diodes is being distributed substantially uniformly across the substrate; and

a first set of lenses optically coupled to the first set of light emitting diodes, the lenses of the first set of lenses having a radius and refractive index that effects a first angular distribution of light produced by the first set of light emitting diodes;

a second set of light emitting diodes disposed over the substrate, the second set of light emitting diodes is being distributed substantially uniformly

across the substrate, the light emitting diodes of the second set being interspersed amongst the light emitting diodes of the first set;

a second set of lenses optically coupled to the second set of light emitting diodes, the lenses of the second set of lenses having a radius and refractive index that effects a second angular distribution of light produced by the second set of light emitting diodes, the second angular distribution being different from the first angular distribution; and

a control module that energizes a selected one of the first set of light emitting diodes and the second set of light emitting diodes to produce a spot light beam with a corresponding selected one of the first angular distribution and the second angular distribution.

20. (canceled)

21. (previously presented) The variable beam spot light as set forth in claim 18, wherein the control module includes:

a power input control that applies variable power energizing of the selected one of the first set of light emitting diodes and the second set of light emitting diodes to effect a variable intensity of the spot light beam.

22. (previously presented) The variable beam spot light as set forth in claim 21, wherein the power input control of the control module is one of a user-operable rheostat and a variable voltage divider.

23. (previously presented) The variable beam spot light as set forth in claim 18, wherein the control module includes:

a voltage divider that conditions voltage applied to one of the first set of light emitting diodes and the second set of light emitting diodes.

24-25. (canceled)

26. (currently amended) The spot light as set forth in ~~claim 25~~, claim 1, wherein the substrate is a copper plate having a plurality of wells formed therein,

each well containing one of the light emitting diodes and having the coupled lens disposed over the contained light emitting diode.

27. (currently amended) The spot light as set forth in ~~claim 24,~~ claim 1, wherein the first and second lighting units each include a plurality of LEDs ~~the light emitting diode devices of each set of light emitting diode devices are~~ distributed essentially uniformly across the substrate.

28. (currently amended) The spot light as set forth in ~~claim 24,~~ claim 1, wherein the first and second lighting units each include a plurality of LEDs, the LEDs of the first lighting unit and the LEDs of the second lighting unit each ~~the light emitting diode devices of the at least three sets of light emitting diode devices are~~ arranged in concentric circles about the center of the substrate.

29. (currently amended) The spot light as set forth in ~~claim 28,~~ claim 1, further including:

~~a fourth set of light emitting diode devices~~ third lighting unit consisting of a single light emitting diode ~~device~~ and optically coupled third lens element disposed at the center of the substrate.